# Palakorn Achananuparp

OTHER NAMES Aek, 周桂强

Contact School of Computing and Information Systems

Information Singapore Management University

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RESEARCH Computational Social Science, Data Science, Digital Health Interests

EMPLOYMENT Singapore Management University, Singapore

Senior Research Scientist, 2022 - Present

Living Analytics Research Centre, Singapore

Senior Research Scientist, 2017 - 2022

Living Analytics Research Centre, Singapore

Research Scientist, 2011 - 2017

Singapore Management University, Singapore

Postdoctoral Fellow, 2010 - 2011

Drexel University, Philadelphia, PA

Research Assistant, 2004 - 2010

Carnegie Mellon University, Pittsburgh, PA

Research and Teaching Assistant, 2003 - 2004

Carnegie Mellon University, Pittsburgh, PA

Web Developer, Spring - Summer 2003

Siam Commercial Bank, Bangkok, Thailand

System Specialist, 2000 - 2002

EDUCATION Drexel University, Philadelphia PA

Ph.D. in Information Science, 2004 - 2010

Adviser: Xiaohua Tony Hu

Carnegie Mellon University, Pittsburgh PA

Master of Information Systems Management (MISM), 2002 - 2004

GPA: 3.83/4.0 (Distinction)

Chulalongkorn University, Bangkok, Thailand

Bachelor of Economics, 1996 - 2000

Second Class Honours

AWARDS AND Best Reviewers Award at the 12th International AAAI Conference on Web and Social Media

(ICWSM 2018), 2018

SCHOLARSHIPS

Best Paper Award at the 8th International Digital Health Conference (DH 2018), 2018

Graduate Research Assistantship, The iSchool at Drexel, Drexel University, 2004-2010 Dean's Award, Research Day at Drexel University, April 2005

#### Preprints

- V N S Rama Krishna Pinnimty, Matt Zhao, Palakorn Achananuparp, Ee-Peng Lim (2020) Transforming Facial Weight of Real Images by Editing Latent Space of StyleGAN. arXiv:2011.02606 [cs.CV]
- Hao Wang, Doyen Sahoo, Chenghao Liu, Ke Shu, Palakorn Achananuparp, Ee-peng Lim, Steven C. H. Hoi (2020) Cross-Modal Food Retrieval: Learning a Joint Embedding of Food Images and Recipes with Semantic Consistency and Attention Mechanism. arXiv:2003.03955 [cs.CV]

## JOURNAL PUBLICATIONS

- Jocelyn Chew, Palakorn Achananuparp (2021) Perceptions and needs of artificial intelligence in healthcare to increase adoption: A scoping review. **Journal of Medical Internet Research**
- Hao Wang, Doyen Sahoo, Chenghao Liu, Ke Shu, Palakorn Achananuparp, Ee-Peng Lim, Steven C.H. Hoi (2021) Cross-Modal Food Retrieval: Learning a Joint Embedding of Food Images and Recipes with Semantic Consistency and Attention Mechanism. **IEEE Transactions on Multimedia**
- Palakorn Achananuparp, Ee-Peng Lim, Jing Jiang, and Tuan Anh Hoang (2012) Who is Retweeting the Tweeters? Modeling Originating and Promoting Behaviors in Twitter Network. ACM Transactions on Management Information Systems
- Nicholas Harrigan, Palakorn Achananuparp, and Ee-Peng Lim (2012) Influentials, Novelty, and Social Contagion: The viral power of average friends, close communities, and old news. **Social Networks**
- Xiaodan Zhang, Xiaohua Hu, Jiali Xia, Xiaohua Zhou, Palakorn Achananuparp (2008) A Graph-Based Biomedical Literature Clustering Approach Utilizing Term's Global and Local Importance Information. **International Journal of Data Warehousing and Mining**

## Conference Publications

- Yue Liu, Helena Lee, Palakorn Achananuparp, and Ee-Peng Lim (2019) Characterizing and Predicting Repeat Food Consumption Behavior for Just-in-Time Interventions. In Proc. of the 9th International Digital Public Health Conference (**DPH 2019**), Marseille, France
- Helena Lee, Palakorn Achananuparp, Yue Liu, Ee-Peng Lim, and Lav R. Varshney (2019) Estimating Glycemic Impact of Cooking Recipes via Online Crowdsourcing and Machine Learning. In Proc. of the 9th International Digital Public Health Conference (**DPH 2019**), Marseille, France
- Doyen Sahoo, Hao Wang, Shu Ke, Xiongwei Wu, Hung Le, Palakorn Achananuparp, Ee-Peng Lim, and Steven Hoi (2019) FoodAI: Food Image Recognition via Deep Learning for Smart Food Logging. In Proc. of **KDD 2019**, Anchorage, AK [ 14% acceptance rate]
- Palakorn Achananuparp, Ee-Peng Lim, Vibhanshu Abhishek, and Pepper Yun (2018) Eat & Tell: A Randomized Trial of Random-Loss Incentive to Increase Dietary Self-Tracking Compliance. In Proc. of the 8th International Digital Public Health Conference (**DH 2018**), Lyon, France
- Palakorn Achananuparp, Ee-Peng Lim, and Vibhanshu Abhishek (2018) Does Journaling Encourage Healthier Choices? Analyzing Healthy Eating Behaviors of Food Journalers. In Proc. of the 8th International Digital Public Health Conference (**DH 2018**), Lyon, France **Best Paper Award**
- Kwan Hui Lim, Ee-Peng Lim, Binyan Jiang, and Palakorn Achananuparp (2016) Using Online Controlled Experiments to Examine Authority Effects on User Behavior in Email Campaigns. In Proc. of **HT 2016**, Halifax, Canada

- Ingmar Weber and Palakorn Achananuparp (2016) Insights From Machine-Learned Diet Success Prediction. In Proc. of Pacific Symposium on Biocomputing (PSB) 2016, Hawaii
- Wei Gong, Ee-Peng Lim, Feida Zhu, and Palakorn Achananuparp (2016) On Finding the Point Where There Is No Return: Turning Point Mining on Game Data. In Proc. of **SDM 2014**
- Philips K. Prasetyo, David Lo, Palakorn Achananuparp, Yuan Tian, and Ee-Peng Lim (2012) Automatic Classification of Software Related Microblogs. In Proc. of ICSM ERA 2012
- Ee-Peng Lim and Palakorn Achananuparp (2012) Palanteer: A Search Engine for Community Generated Microblogging Data. In Proc. of **ICADL 2012**
- Wei Gong, Ee-Peng Lim, Palakorn Achananuparp, Feida Zhu, David Lo, and Freddy Chong Tat Chua (2012) In-Game Action List Segmentation and Labeling in Real-Time Strategy Games. In Proc. of **CIG 2012**, Granada, Spain
- Yuan Tian, Palakorn Achananuparp, Ibrahim Nelman Lubis, David Lo, and Ee-Peng Lim (2012) What Does Software Engineering Community Microblog About? In Proc. of MSR 2012
- Marko Skoric, Nathaniel Poor, Palakorn Achananuparp, Ee-Peng Lim, and Jing Jiang (2012) Tweets and votes: A study of the 2011 Singapore General Election. In Proc. of **HICSS** 2012, Hawaii
- Tuan-Anh Hoang, Ee-Peng Lim, Palakorn Achananuparp, Jing Jiang, and Feida Zhu (2011) On Virality of Twitter Content. In Proc. of **ICADL 2011**
- Tuan-Anh Hoang, Ee-Peng Lim, Palakorn Achananuparp, Jing Jiang, and Loo-Nin Teow (2011) Modeling Socialness in Dynamic Social Networks. In Proc. of **ASONAM 2011** [25% acceptance rate]
- Xin Zhao, Jing Jiang, Jing He, Yang Song, Palakorn Achananuparp, Ee-Peng Lim, and Xiaoming Li (2011) Topical Keyphrase Extraction from Twitter. In Proc. of **HLT 2011** [26% acceptance rate]
- Palakorn Achananuparp, Xiaohua Hu, Lifan Guo, Tingting He, Yuan An, and Zhoujun Li (2010) Improving Diversity of Focused Summaries through the Negative Endorsements of Redundant Facts. In Proc. of **WI 2010** [16.6% acceptance rate]
- Palakorn Achananuparp, Xiaohua Hu, Tingting He, Christopher C. Yang, Yuan An, and Lifan Guo (2010) Answer Diversification for Complex Question Answering on the Web. In Proc. of **PAKDD 2010** [13.1% acceptance rate]
- Palakorn Achananuparp, Christopher C. Yang, Xin Chen (2009) Using Negative Voting to Diversify Answers in Non-Factoid Question Answering. In Proc. of CIKM 2009, Hong Kong [20% acceptance rate]
- Xin Chen, Caimei Lu, Yuan An, and Palakorn Achananuparp (2009) Probabilistic Models for Topic Learning from Images and Captions in Online Biomedical Literatures. In Proc. of CIKM 2009, Hong Kong [20% acceptance rate]
- Palakorn Achananuparp, Xiaohua Hu, Christopher C. Yang (2009) Addressing the Variability of Natural Language Expression in Sentence Similarity with Semantic Structure of the Sentences. In Proc. of **PAKDD 2009**, Bangkok, Thailand, 548-555 [33% acceptance rate]
- Palakorn Achananuparp, Xiaohua Hu, and Xiajiong Chen (2008) The Evaluation of Sentence Similarity Measures. In Proc. of **DaWak 2008**, Turin, Italy, 305-316 [33% acceptance rate]
- Palakorn Achananuparp, Xiaohua Hu, Xiaohua Zhou, and Xiaodan Zhang (2008) Utilizing Semantic, Syntactic, and Question Category Information for Automated Digital Reference Services. In Proc. of **ICADL 2008**, Bali, Indonesia, 203-214 [12% acceptance rate]

- Palakorn Achananuparp, Xiaohua Zhou, Xiaohua Hu, and Xiaodan Zhang (2008) Semantic Representation in Text Classification Using Topic Signature Mapping. In Proc. of **IJCNN 2008**, Hong Kong, 1034-1040
- Xiaodan Zhang, Xiaohua Hu, Jiali Xia, Xiaohua Zhou, and Palakorn Achananuparp (2007) Utilization of Global Ranking Information in Graph-based Biomedical Literature Clustering. In Proc. of **DaWak 2007**, Regensburg, Germany, 313-322 [29% acceptance rate]
- Chen Wu, Xiaohua Hu, Zhoujun Li, Xiaohua Zhou, and Palakorn Achananuparp (2007) Algorithms for Different Approximations in Incomplete Information Systems with Maximal Compatible Classes as Primitive Granules. In Proc. of **GrC 2007**, Silicon Valley, California, 169-174
- Palakorn Achananuparp, Hyoil Han, Olfa Nasraoui, and Roberta Johnson (2007) Semantically enhanced user modeling. In Proc. of **SAC 2007**, Seoul, South Korea, 1335-1339 [31% acceptance rate]
- Palakorn Achananuparp, Robert B. Allen, and Katherine W. McCain (2007) Supporting Student Collaboration for Image Indexing. In Proc. of **ICADL 2007**, Hanoi, Vietnam [26% acceptance rate]
- Robert B. Allen, Andrea Japzon, Palakorn Achananuparp, and Ki Jung Lee (2007) A Framework for Text Processing and Supporting Access to Collections of Digitized Historical Newspapers. In Proc. of **HCII 2007**, Beijing, China, 235-244
- Palakorn Achananuparp and Robert B. Allen (2007) Developing a student-friendly repository for teaching the principles of repository management. In Proc. of An International Symposium in Digital Curation (**DigCCur 2007**), Chapel Hill, NC
- Scott P. Robertson, Palakorn Achananuparp, James L. Goldman, Sang Joon Park, Nan Zhou, and Matthew J. Clare (2005) Voting and political information gathering on paper and online. In Proc. of **CHI 2005**, 1753-1756

## Workshop Papers

- Philips Kokoh Prasetyo, Palakorn Achananuparp, and Ee-Peng Lim (2016) On Analyzing Geotagged Tweets for Location-Based Patterns. In Proc. of the 1st International Workshop on Understanding Situations Through Multimodal Sensing (uSitu 2016), Singapore
- Kwan Hui Lim, Binyan Jiang, Ee-Peng Lim, and Palakorn Achananuparp (2014) Do you know the speaker? An online experiment with authority messages on event websites. In Proc. of **WWW '14 Companion**, Seoul, Korea
- Agus Trisnajaya Kwee, Ee-Peng Lim, Palakorn Achananuparp, and Feida Zhu (2012) Follow Link Seeking Strategy: A Pattern Based Approach. In Proc. of **SNAKDD 2012**, Beijing, China
- Palakorn Achananuparp, Xiaohua Zhou, Xiaohua Hu, and Xiaodan Zhang (2008) Utilizing Sentence Similarity and Question Type Similarity to Respond to Similar Questions in Knowledge-Sharing Community. In Proc. of the First WWW Workshop on Question Answering on the Web (QAWeb2008) at WWW 2018, Beijing, China

Demos

- Helena H. Lee, Ke Shu, Palakorn Achananuparp, Philips Kokoh Prasetyo, Yue Liu, Lav R. Varshney and Ee-Peng Lim (2020) RecipeGPT: Generative Pre-training Based Cooking Recipe Generation and Evaluation System. In Proc. of **WWW 2020**.
- Kwan Hui Lim, Ee-Peng Lim, Palakorn Achananuparp, Adrian Vu, Agus Trisnajaya Kwee, and Feida Zhu (2014) LASER: A Living AnalyticS ExpeRimentation System for Large-scale Online Controlled Experiments. In Proc. of **WWW 2014**.
- Palakorn Achananuparp, Ibrahim Lubis, Yuan Tian, David Lo, and Ee-Peng Lim (2012) Observatory of Trends in Software Related Microblogs. In Proc. of ASE 2012 (Tools).

Xiaohua Zhou, Palakorn Achananuparp, E. K. Park, and Xiaohua Hu (2009) AskDragon: A Redundancy-Based Factoid Question Answering System with Lightweight Local Context Analysis. In Proc. of **JCDL 2009**.

#### Posters

Philips Kokoh Prasetyo, Palakorn Achananuparp, and Ee-Peng Lim (2020) Foodbot: A Goal-Oriented Just-in-Time Healthy Eating Interventions Chatbot. **PervasiveHealth 2020**.

Kwan Hui Lim, Ee-Peng Lim, Binyan Jiang, and Palakorn Achananuparp (2015) Who is the Sender? Authority Effects of User Behavior in Email Campaigns. **IC2S2 2015**.

Han Lin, Lin Qiu, Moon-Ho Ringo Ho, Chi-yue Chiu, Palakorn Achananuparp, and Ee-Peng Lim (2013) Temporal Pattern of Question Asking on Twitter. **HCII 2013**.

Palakorn Achananuparp, Jim Waters, Katherine W. McCain, and Robert B. Allen (2006) Towards a Curriculum for the Management of Digital Information: Tools to Support Collaborative Metadata Development. **ASIS&T 2006**.

Palakorn Achananuparp, Katherine W. McCain, and Robert B. Allen (2006) A Tool for Teaching the Indexing of Digital Images. **JCDL 2006**.

Scott Robertson, Nan Zhou, Sang Joon Park, Jim Goldman, and Palakorn Achananuparp (2005) Deciding on digital democracy: The psychology of electronic voting. **American Psychological Society**.

## TECHNICAL REPORTS

Palakorn Achananuparp, Hyoil Han, Olfa Nasraoui, and Roberta Johnson (2006) Semantically Enhanced User Modeling. Technical Report 06-1, College of Information Science and Technology, Drexel University, September

## Professional Activities

Senior Program Committee/Associate Editor

- Frontiers Digital Health, 2019 Present
- The International AAAI Conference on Web and Social Media (ICWSM 2022), 2019 present

### Program Committee

- The 13th International Conference on Social Informatics (SocInFo 2022), 2022
- The 7th Annual International Conference on Computational Social Science (IC2S2 2021), 2021
- The 12th International Conference on Social Informatics (SocInFo 2020), 2020
- The 6th Annual International Conference on Computational Social Science (IC2S2 2020), 2020
- The 11th International Conference on Social Informatics (SocInFo 2019), 2019
- The 5th Annual International Conference on Computational Social Science (IC2S2 2019), 2019
- The 10th International Conference on Social Informatics (SocInFo 2018), 2018
- The 4th Annual International Conference on Computational Social Science (IC2S2 2018), 2018
- The 12th International AAAI Conference on Web and Social Media (ICWSM 2018), 2018
- The 9th International Conference on Social Informatics (SocInFo 2017), 2017
- The Asian Digital Library Conference (ICADL 2016), 2016
- The 8th International Conference on Social Informatics (SocInFo 2016), 2016
- The Second International Workshop on Social Influence Analysis (SocInf 2016), 2016
- The 7th International Conference on Social Informatics (SocInFo 2015), 2015
- The Asian Digital Library Conference (ICADL 2015), 2015
- The IEEE International Conference on Data Science and Advanced Analytics (DSAA 2015), 2015
- The First International Workshop on Social Influence Analysis (SocInf 2015), 2015
- The Third Asian Conference on Information Systems (ACIS 2014), 2014
- The 7th IEEE Social Computing and Networking (SocialCom 2014), 2014
- The First Workshop on Interaction and Exchange in Social Media (DYAD 2014), 2014
- The 16th Asia-Pacific Web Conference (APWeb 2014), 2014

- The Eight ACM Workshop on Social Network Mining and Analysis (SNA-KDD 2014), 2014
- The International Conference on Data Science and Advanced Analytics (DSAA 2014), 2014
- The 6th International Conference on Social Informatics (SocInFo 2014), 2014
- The 19th International Conference on Database Systems for Advanced Applications (DAS-FAA 2014), 2014
- The 5th International Conference on Social Informatics (SocInFo 2013), 2013
- The 7th ACM Workshop on Social Network Mining and Analysis (SNA-KDD 2013), 2013
- Workshop on Behavior and Social Informatics (BSI 2013), 2013
- Social Computing and its Applications (SCA 2012), 2012
- Social Computing Track of IEEE International Conference on Cyber, Physical, and Social Computing (CPSCom), 2012
- IEEE ICDM 2011 PhD Student Forum, 2011
- Social Computing and its Applications (SCA 2011), 2011
- ACM Symposium on Applied Computing (SAC 2007), Semantic Web and Applications (SWA) Technical Track, 2007
- The 1st International Workshop on Semantic Web Applications: Theory and Practice (SemWAT 2006), 2006

## Reviewer/External Reviewer

- ACM CHI Conference on Human Factors in Computing Systems (CHI), 2022
- Frontiers in Digital Health, 2021
- Asian CHI Symposium, 2020
- PLOS ONE, 2019
- PLOS ONE, 2016
- Journal of American Society for Information Science (JASIST), 2015
- IEEE Transactions on Knowledge and Data Engineering (TKDE), 2014
- Journal of American Society for Information Science (JASIST), 2013
- Journal of American Society for Information Science (JASIST), 2012
- IEICE Transactions on Information and Systems, 2011
- Data & Knowledge Engineering (DKE), 2011
- ACM Transactions on Intelligent Systems and Technology (TIST), 2011
- Journal of Information Retrieval, 2011
- The Third International Conference on Social Informatics (SocInfo 2011), 2011
- The 34th Annual ACM SIGIR Conference (SIGIR 2011), 2011
- Journal of American Society for Information Science (JASIST), 2010
- The Second IEEE International Conference On Social Computing (SocialCom 2010)
- IEEE Transactions on Knowledge and Data Engineering (TKDE), 2010

#### Organizer

• Symposium on Social Dynamics in Online Gaming (SDOG 2011), 2011

## Registration Chair

• IEEE International Conference on Granular Computing (GrC 2007), 2007

#### Member

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)

### Publicity

## Invited Talks

- Research Integrity Conference. Singapore. 22 Oct 2018.
- IPS Digital Frontiers Seminar: Man and Machine (2): Online and Offline Sensing of Public Sentiments on National Day Rally 2016. Singapore, 23 Feb 2017.
- Digital Humanities: Who's Doing What? Singapore. 6 May 2016.
- IPS Symposium on Media and Internet Use During General Election 2015. Singapore. 27 Jan 2016.
- eScience Panel at the International Conference Asian Digital Library Conference. Seoul, Republic of Korea. 9-12 Dec 2015.

#### Media & Press

- Death at Astroworld: 5 Ways Crowds Can Quickly Go Bad. Psychology Today. 8 Nov 2021.
- Should You Track What You Eat? The SMU Blog. 18 Sep 2020.
- 5 Reasons Why Large Crowds Turn Violent. Psychology Today. 30 Jun 2020.
- Under the Mask, Part 2. Psychology Today. 17 May 2020.
- Why food journaling should matter to you. RTÉ Brainstorm. 7 Jan 2020.
- School's in—with machines. Asian Scientist Magazine. 30 Aug 2018.
- Singapore Management University Living Analytics Research Centre comes up with new invention to learn about photography on food. Zaobao. 25 Oct 2017.
- SMU will use NVIDIA's DGX-1 deep learning supercomputer to power AI research. HardwareZone. 30 Nov 2016.
- Ask TIA: Has technology changed the Singapore General Election? Tech in Asia. 10 Sep 2015.
- Campaigning in cyberspace. The Stars. 9 Sep 2015.
- GE2015 analytics. Mediacorp Channel 8 News. 7 Sep 2015.
- Gauging political sentiments with online content. Guanyinmiao's Musings. 16 Feb 2015.
- Study: Most political blogs are balanced. AsiaOne. 14 Feb 2015.
- Making sense of social media. Asian Scientist Magazine. 1 Sep 2014.
- Text Mining: The Gold Rush of Big Data. Asian Scientist Magazine. 11 Jun 2014.